

# CLAIMS

1. A carbonaceous refractory material containing 50 to 85 % ( ' % ' means ' % by mass ' ) of carbon, 5 to 15 % of alumina, 5 to 15 % of metallic silicon, and 5 to 20 % in total of one or two or more material(s) out of metallic titanium, titanium carbide, titanium nitride and titanium carbonitride( $\text{TiC}_x\text{N}_y$ , where  $0 < x, y < 1$  and  $x + y = 1$ ).

2. A method for producing a carbonaceous refractory material by compounding 50-85% of carbonaceous materials, as main raw materials, which are calcined anthracite, calcined coke, natural graphite, artificial graphite or these mixture, with 5-15% of alumina powder, 5-15% of metallic silicon powder and 5-20% in total of one or two or more material(s) out of metallic titanium, titanium carbide, titanium nitride, and titanium carbonitride( $\text{TiC}_x\text{N}_y$ , where  $0 < x, y < 1$  and  $x + y = 1$ ), and by adding organic binder to the mixture, then kneading, forming and baking in non-oxidation atmosphere to obtain the carbonaceous refractory materials in the first claim of the invention.

3. The carbonaceous refractory material in the first or second claim, where the X-ray diffraction peak intensity ratio of the face (200) of the  $\text{Ti}_2\text{O}_3$  to the face (111) of titanium carbide is 1 % or less.

4. The carbonaceous refractory material in the first claim, where a part or the whole of the alumina is replaced by one or two or more material(s) out of zircon, magnesia, mullite, spinel and silica.

5. The method for producing the carbonaceous refractory material in the second claim, where a part or the whole of the alumina powder is replaced by one or two or more material(s) out of the powder of zircon, magnesia, mullite, spinel and silica.